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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,559	10/31/2003	Ronald D. Myers	PM 2001.051	4204

7590

04/07/2005

EXXONMOBIL UPSTREAM RESEARCH COMPANY
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EXAMINER

HRUSKOCI, PETER A

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/699,559

Applicant(s)

MYERS ET AL.

Examiner

Peter A. Hruskoci

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claims 3 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 3 “the addition of the group” and in claim 8 “the CO₂” lack clear antecedent basis.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7, 8, 12, 13, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Myers et al. 6,289,988 in view of Dahlstrom et al. 4,147,756. Myers et al. disclose (see col. 1 line 13 through col. 3 line 40) an integrated water treatment and flue gas desulfurization process substantially as claimed. The claims differ from Myers et al. by reciting specific steps for producing a softened alkaline water stream, and utilizing the softened alkaline water stream to scrub the flue gas. Dahlstrom et al. disclose (see col. 5 line 1 through col. 9 line 23) that it is known in the art to utilize a softened alkaline water stream as a scrubbing solution for flue gases to preclude scaling problems in the scrubbing system. It would have been obvious to one skilled in the art to modify the process of Myers et al. by utilizing the recited steps for producing and utilizing the softened alkaline water stream in view of the teachings of Dahlstrom et al., to aid in precluding scaling problems in the desulfurization process. The specific pH of the treated water stream, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific water stream treated and results desired, absent a sufficient showing of unexpected results.

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Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Myers et al. 6,289,988 in view of Dahlstrom et al. 4,147,756 and the Admitted Prior Art disclosed on page 2 paragraph [0008] of the instant specification. The claim differs from the references as applied above by reciting that the precipitating alkali agent is ammonia. The Admitted Prior Art discloses that it is known to utilize alkaline materials including ammonia to soften industrial process water. It would have been obvious to one skilled in the art to modify the references as applied above by utilizing the recited ammonia view of the Admitted Prior Art, to aid in softening the water stream.

Claims 6, 10, 11, and 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Myers et al. 6,289,988 in view of Dahlstrom et al. 4,147,756 and the citation from Betz Handbook. The claims differ from the references as applied above by reciting that water stream has a specific temperature and pH, and step (a) includes the addition of magnesium oxide for silica removal. Betz discloses (see pages 47-50) that it is known to utilize the recited temperature, pH, and magnesium oxide, to aid in softening water and removing silica from the water, respectively. It would have been obvious to one skilled in the art to modify the references as applied above by utilizing the recited temperature, pH, and magnesium oxide view of the teachings in Betz Handbook, to aid in softening the water stream, and removing silica from the water stream, respectively.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Myers et al. 6,289,988 in view of Dahlstrom et al. 4,147,756 and Betz Handbook as applied above, and further in view of the Admitted Prior Art disclosed on page 2 paragraph [0008] of the instant specification. The claim differs from the references as applied above by reciting that the

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precipitating alkali agent is a combination of ammonia and magnesium oxide. The Admitted Prior Art discloses that it is known to utilize alkaline materials including ammonia to soften industrial process water. It would have been obvious to one skilled in the art to modify the references as applied above by utilizing the recited combination view of the Admitted Prior Art, to aid in softening the water stream.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Peter A. Hruskoci
Primary Examiner
Art Unit 1724

4/2/05